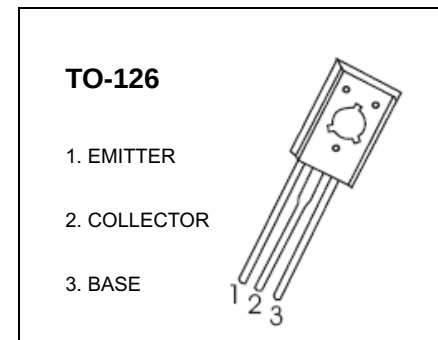


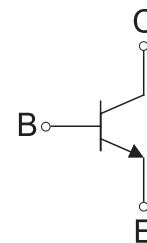
2SD669 / 2SD669A TRANSISTOR (NPN)

FEATURES

- Low Frequency Power Amplifier Complementary
- Pair with 2SB649 / 2SB649A



Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SD669	TO-126	Bulk	200pcs/Bag
2SD669A	TO-126	Bulk	200pcs/Bag
2SD669-TU	TO-126	Tube	60pcs/Tube
2SD669A-TU	TO-126	Tube	60pcs/Tube

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter		Value	Unit
V _{CB0}	Collector- Base Voltage		180	V
V _{CEO}	Collector-Emitter Voltage	2SD669	120	V
		2SD669A	160	
V _{EBO}	Emitter-Base Voltage		5	V
I _C	Collector Current -Continuous		1.5	A
P _C	Collector Dissipation		1	W
T _J	Junction Temperature		150	°C
T _{stg}	Storage Temperature		-55-150	°C

ELECTRICAL CHARACTERISTICS $T_a=25^\circ\text{C}$ unless otherwise specified

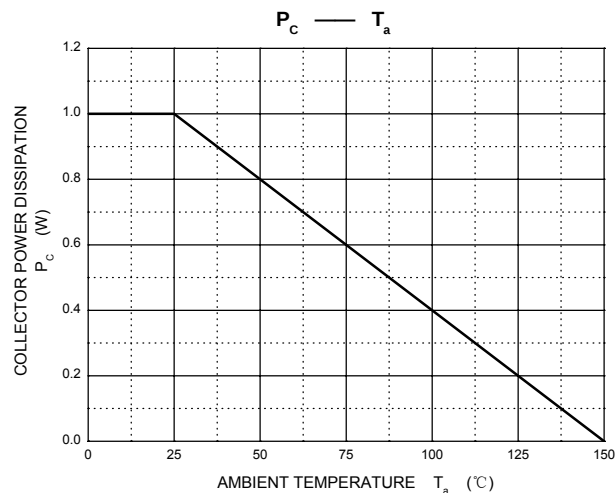
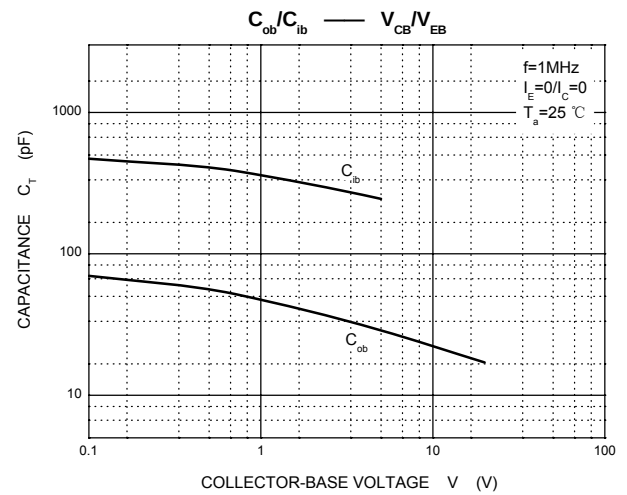
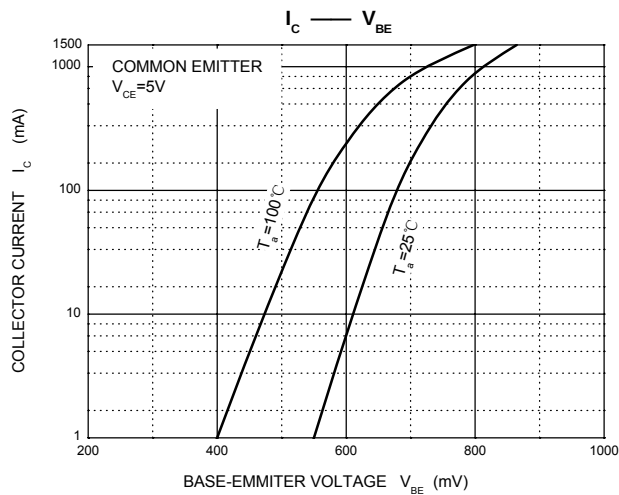
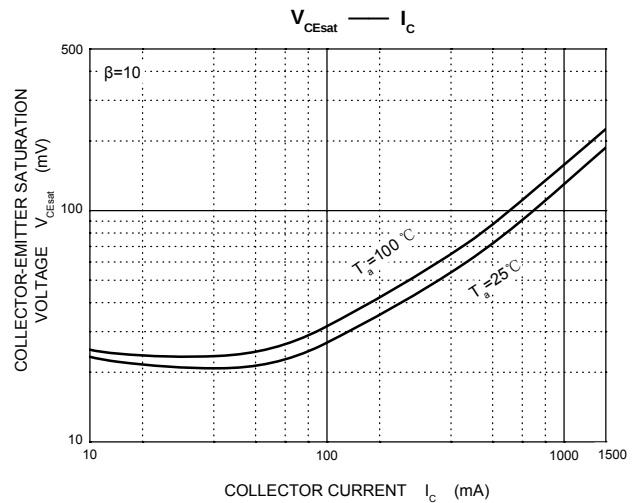
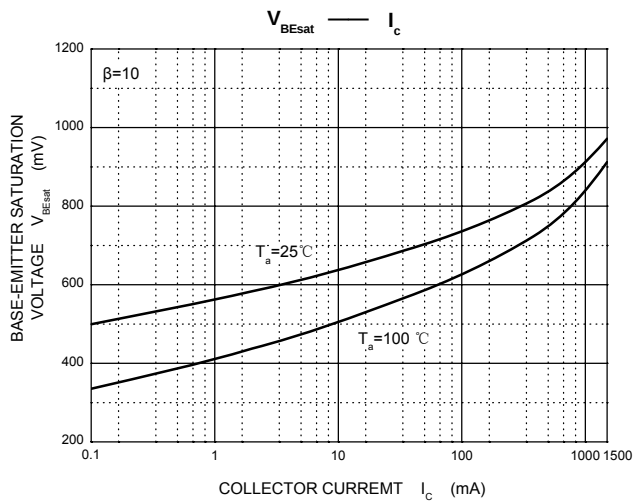
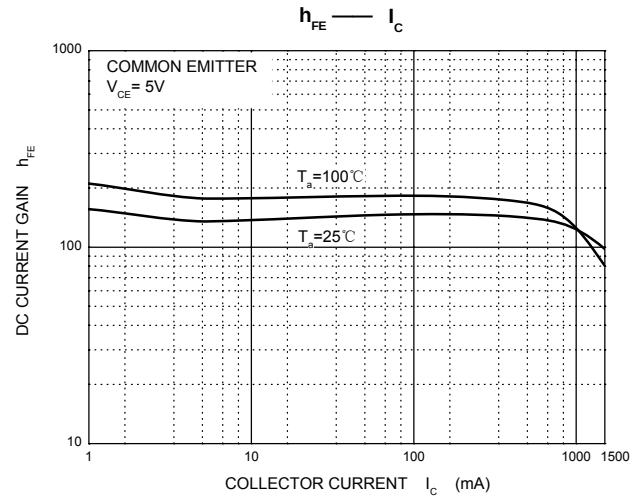
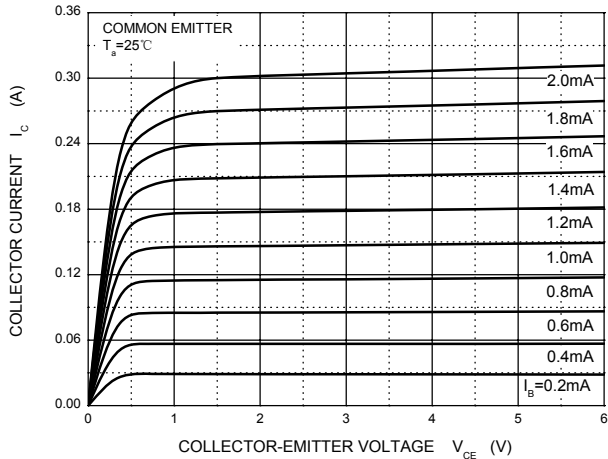
Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}, I_E=0$		180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	2SD669	120			V
			2SD669A	160			
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$		5			V
Collector cut-off current	I_{CBO}	$V_{CB}=160\text{V}, I_E=0$				10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$				10	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=5\text{V}, I_C=150\text{mA}$	2SD669	60		320	
			2SD669A	60		200	
	$h_{FE(2)}$	$V_{CE}=5\text{V}, I_C=500\text{mA}$		30			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$				1	V
Base-emitter voltage	V_{BE}	$V_{CE}=5\text{V}, I_C=150\text{mA}$				1.5	V
Transition frequency	f_T	$V_{CE}=5\text{V}, I_C=150\text{mA}$			140		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$			14		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank		B	C	D
Range	2SD669	60-120	100-200	160-320
	2SD669A	60-120	100-200	

Typical Characteristics

Static Characteristic



TO-126 PACKAGE OUTLINE

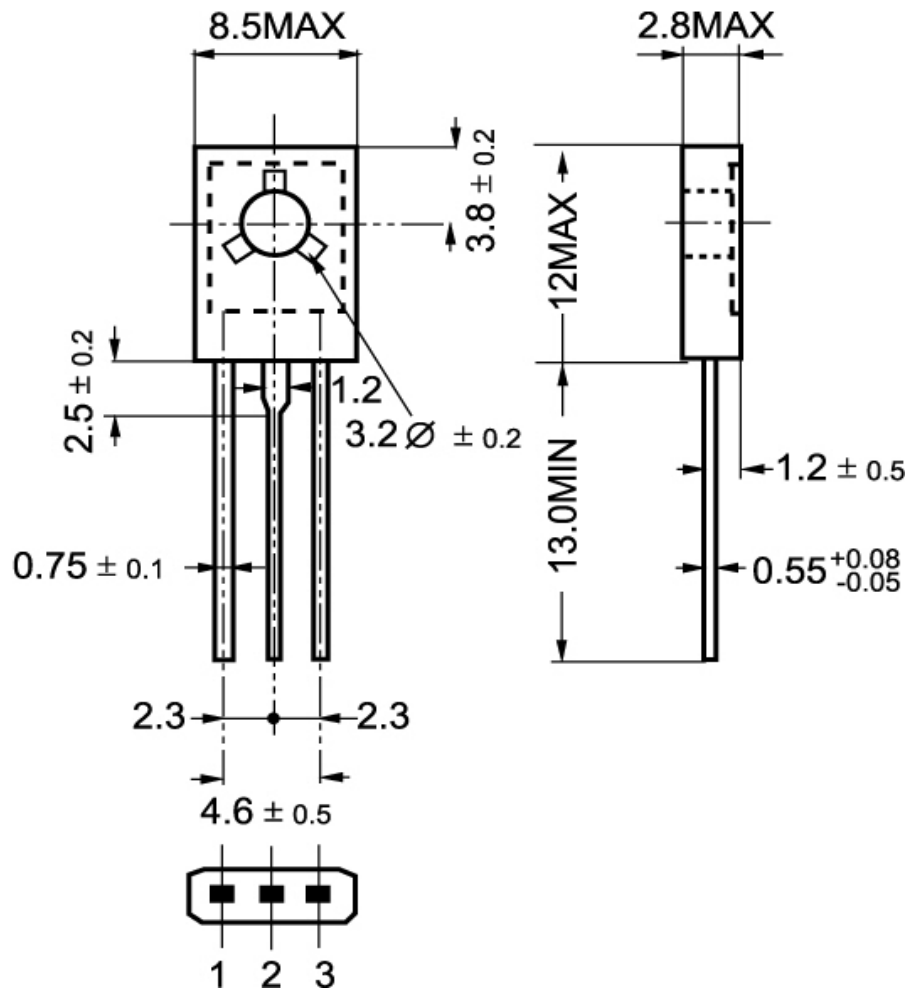


Fig.2 Outline dimensions